ABSTRACT OF THE DISCLOSURE

A receiver circuit identifies one or more interfering signals received with a desired signal by generating and evaluating one or more hypothesized interferers. By testing these hypotheses, such as through joint synchronization and channel estimation for the desired signal and the one or more hypothesized interferers, the circuit identifies which hypothesized interferer(s) best correspond to the dominant interfering signal(s) actually received. Channel models thus obtained for the dominant interferer(s) may be used in, for example, generating a whitening filter used in interference suppression, or jointly demodulating the desired and interfering signal(s).